

# 2023 Vehicle Technologies Office Annual Merit Review

## Electrification R&D (ELT) Detailed Schedule

Tuesday, June 13, 2023		Wednesday, June 14, 2023		Thursday, June 15, 2023	
10:00 AM	<b>ELT215:</b> Develop fine-grain RE permanent magnet with high coercivity at high temperature AND cost-effective manufacturing process for high performance soft magnetic materials in thin sheet form, Iver Anderson, Ames Laboratory	10:00 AM	<b>ELT252:</b> Wound-Field Synchronous Machine-System Integration toward Increased Power Density and Commercialization, Lakshmi Iyer, Magna Services of America Inc.	10:00 AM	<b>ELT240:</b> Wireless Extreme Fast Charging for Electric Trucks (WXFC-Trucks), Ryan Calder, WAVE
10:15 AM		10:15 AM		10:15 AM	
10:30 AM	<b>ELT216:</b> Isotropic, Bottom-Up Soft Magnetic Composites for Rotating Machines, Todd Monson, SNL	10:30 AM	<b>ELT255:</b> Cost-Effective, Rare-Earth-Free, Flux-Doubling, Torque-Doubling, Increased Power Density Traction Motor with Near-Zero Open-Circuit Back-Electromagnetic Field and No-Cogging Torque, Jim Gafford, UNC-Charlotte	10:30 AM	<b>ELT278:</b> EVs@Scale Lab Consortium, Andrew Meintz, NREL
10:45 AM		10:45 AM		10:45 AM	
11:00 AM	<b>ELT211:</b> Power Electronics Thermal Management, Gilbert Moreno, NREL	11:00 AM	<b>ELT179:</b> Low Cost, High-Performance, Heavy Rare-Earth-Free 3-In-1 Electric Drive Unit, David Crecelius, American Axle & Manufacturing	11:00 AM	
11:15 AM		11:15 AM		11:15 AM	
11:30 AM	<b>ELT209:</b> High-Voltage, High-Power Density Traction-Drive Inverter, Gui-Jia Su, ORNL	11:30 AM	<b>ELT288:</b> Scalable Ultra Power-Dense Extended Range (SUPER) Inverter, Harsha Nanjundaswamy, BorgWarner	11:30 AM	<b>ELT262:</b> Long-Range, Heavy-Duty Battery-Electric Vehicle with Megawatt Wireless Charging, Ryan Reed, Kenworth
11:45 AM		11:45 AM		11:45 AM	
12:00 PM	<b>ELT219:</b> Power Electronics Materials and Bonded Interfaces-Reliability and Lifetime, Paul Paret, NREL	12:00 PM	<b>ELT282:</b> Technology & Design Innovations to Maximize the Reduction Effect on DCFC Unit Cost Economics (Max-REDUCE), Robert Keefover, BorgWarner	12:00 PM	<b>ELT260:</b> Improving the Freight Productivity of a Heavy-Duty, Battery Electric Truck by Intelligent Energy Management, Teresa Taylor, Volvo
12:15 PM		12:15 PM		12:15 PM	
12:30 PM	<b>Time Buffer</b>	12:30 PM	<b>Time Buffer</b>	12:30 PM	<b>Time Buffer</b>
12:40 PM	<b>Lunch Break</b>	12:40 PM	<b>Lunch Break</b>	12:40 PM	<b>Lunch Break</b>
1:40 PM	<b>ELT208:</b> Highly Integrated Power Module, Lincoln Xhue, ORNL	12:00 PM	<b>ELT289:</b> Rare Earth Free Motor Designs with MnBI, Robert Kinner, PowderMet Inc.	1:40 PM	<b>ELT261:</b> High-Efficiency Powertrain for Heavy-Duty Trucks using Silicon Carbide Inverter, Steve Peelman, Ricardo
1:55 PM		12:15 PM		1:55 PM	
2:10 PM	<b>ELT 223:</b> Component Testing, Co-Optimization, and Trade-Space Evaluation, Jason Neely, SNL	12:30 PM	<b>ELT290:</b> Behind-the-Meter-Storage, Matt Keyser, NREL	2:10 PM	<b>ELT274:</b> eMosaic: Electrification Mosaic Platform for Grid-Informed Smart Charging Management, Alex Brissette, ABB
2:25 PM		12:40 PM		2:25 PM	
2:40 PM	<b>ELT221:</b> Integrated Electric Drive System, Shajjad Chowdhury, ORNL	1:40 PM	<b>ELT291:</b> Enabling Extreme Fast Charging with Energy Storage, Jonathan Kimball, Missouri University S&T	2:40 PM	<b>ELT264:</b> Demonstration of Utility Managed Smart Charging For Multiple Benefit Streams, Stephanie Leach, Exelon/Pepco Holdings Inc.
2:55 PM		1:55 PM		2:55 PM	
3:10 PM	<b>Time Buffer</b>	2:10 PM	<b>ELT158:</b> Zero-Emission Cargo Transport II: San Pedro Bay Ports Hybrid & Fuel-Cell Electric Vehicle Project, Seungbum Ha, SCAQMD	3:10 PM	<b>Time Buffer</b>
3:15 PM	<b>Break</b>	2:25 PM		3:15 PM	<b>Break</b>
3:45 PM	<b>ELT285:</b> Development and Demonstration of Zero-Emission Technologies for Commercial Fleets (Supertruck 3), Maarten Meijer, PACCAR	2:40 PM	<b>ELT197:</b> High Power and Dynamic Wireless Charging of Electric Vehicles, Veda Galigekere, ORNL	3:45 PM	<b>ELT265:</b> A Secure and Resilient Interoperable SCM Control System Architecture for Electric Vehicle's-At-Scale, Duncan Woodbury, Dream Team LLC
4:00 PM		2:55 PM		4:00 PM	
4:15 PM	<b>ELT286:</b> A Zero Emission Freight Future (SuperTruck 3), Eric Bond, Volvo	3:10 PM	<b>ELT239:</b> High-Power Inductive Charging System Development and Integration for Mobility, Omer Onar, ORNL	4:15 PM	<b>ELT236:</b> Direct-Current Conversion Equipment Connected to the Medium-Voltage Grid for Extreme Fast Charging Utilizing Modular and Interoperable Architecture, Watson Collins, EPRI
4:30 PM		3:15 PM		4:30 PM	
4:45 PM	<b>ELT287:</b> Cummins High Power Density Inverter, Santhosh Krishnamoorthi, Cummins	3:45 PM	<b>ELT238:</b> Intelligent, Grid-Friendly, Modular Extreme Fast Charging System with Solid-State Direct-Current Protection, Srdjan Lukic, North Carolina State University	4:45 PM	<b>ELT284:</b> Ultra-low Cost, All-SiC Modular Power Converters for DC Fast Charging Equipment Connected Directly to Medium Voltage Distribution System, Srdjan Lukic, North Carolina State University
5:00 PM		4:00 PM		5:00 PM	
5:15 PM	<b>Day 1 Ends</b>	4:15 PM	<b>ELT239:</b> High-Power Inductive Charging System Development and Integration for Mobility, Omer Onar, ORNL	5:15 PM	<b>ELT284:</b> Ultra-low Cost, All-SiC Modular Power Converters for DC Fast Charging Equipment Connected Directly to Medium Voltage Distribution System, Srdjan Lukic, North Carolina State University
		4:30 PM		5:30 PM	
		4:45 PM	<b>Day 2 Ends</b>	5:45 PM	<b>AMR Ends</b>
		5:00 PM			
		5:15 PM			